PureSense Environmental, Inc. Profile and CRADA with U.S. EPA

CRADA

PureSense and the U.S. EPA have initiated a Cooperative Research and Development Agreement (CRADA) in response to EPA's responsibilities for securing the national water infrastructure under Presidential Decision Directive 63. The objective of this research is to evaluate the effectiveness of an early warning network that includes water quality sensors interfaced with data acquisition systems to provide operators a real time alert of intentional or accidental contamination of a drinking water system. The experiments will be conducted on a recirculating test loop and single pass pipe at the Water Awareness Technology Evaluation Research Security (WATERS) Center located at EPA's Test and Evaluation facility in Cincinnati, Ohio. Additional testing may be conducted at secure military facilities. EPA will evaluate the effectiveness of such an early warning system and will prepare a final report documenting the results of this research.

TECHNOLOGY

The PureSense system is designed to work in conjunction with standard water quality sensors, and Supervisory Control and Data Acquisition (SCADA) systems and remote telemetry systems, to significantly reduce false negative and false positive signals. EPA will test the PureSense software to determine if the occurrence of false signals produced by water quality sensors is significantly reduced when contaminants such as pesticides, herbicides, industrial chemicals and wastewater are introduced into a drinking water distribution system.

PureSense provides fully-integrated systems that effectively monitor, analyze and alert water system operators to potential contamination in real time rather than the 3-15 days typical of traditional laboratory analysis. The PureSense Water Quality and Security Management system is currently in use by public water systems and the U.S. military. The system consists of three main components designed to work seamlessly to provide complete solutions for water quality and security:

- **PureSense iWatch** is a real-time data collection network that uses intelligent transceivers connected to water sensors to continuously gather information on water quality throughout the distribution system.
- **PureSense iServe** analytics engine applies sophisticated artificial intelligence-based algorithms to make sense of the information collected, both from within the water system and from external sources (such as emergency response teams or hospitals).
- **PureSense AlertNet** provides access to timely, Internet-based, decision-support applications including alerts, automated reporting and on-demand analytics, tailoring output to the needs of each party.

COMPANY INFORMATION

PureSense, headquartered at NASA Research Park in Moffett Field, California, is a leader in the development of world-class decision support solutions for environmental resource quality and security.